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10/715,114	11/18/2003	Roger Grambihler	MFCP.110233	3989
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SHOOK, HARDY & BACON L.L.P. (c/o MICROSOFT CORPORATION) 2555 GRAND BOULEVARD KANSAS CITY, MO 64108-2613			EXAMINER HUTTON JR, WILLIAM D	
			ART UNIT	PAPER NUMBER
			2176	

DATE MAILED: 03/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/715,114

Applicant(s)

GRAMBIHLER ET AL.

Examiner

Doug Hutton

Art Unit

2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

#### ***Specification***

The abstract of the disclosure is objected to because it exceeds 150 words in length. Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities:

- The blank line on Page 1, Paragraph 0001, should be amended to — because that is the serial number of the referenced application.
- The phrase “*embed fields including **for** identifiers*” on Page 5, Paragraph 0025, second sentence, should be amended to — embed fields including [[for]] identifiers — so that the phrase reads more clearly.
- The term “shcmeas” on Page 6, Paragraph 0027, Expression 1, should be amended to — schemas — because it appears to be a typographic error.
- The sentence “Upon receipt by the mapping engine 106, this source XAML 102 may generate the associated set of binary records 130 illustrated in Fig. 4.” on Page 6, Paragraph 0028, first sentence, should be amended because it does not accurately describe the invention. The “source XAML” does **not** generate a binary record, as specified by this sentence. Rather, it is the **mapping engine** that generates a binary record **using** “source XAML.”
  - Additionally, the examiner fails to understand how the brief XML set forth in “Expression 1” is converted from its form in “Expression 1” to the binary

representation illustrated in Figure 4, which appears to include many XML elements that are not found in "Expression 1." Moreover, the examiner fails to see how the XML in "Expression 1" is "optimized," as recited in Claim 1, when the *brief* XML in "Expression 1" is converted into the comparatively large "binary representation" illustrated in Figure 4. In the response to this Office Action, Applicant should explain this paradox and detail how "Expression 1" is converted into the "binary representation" of Figure 4.

- The term "hoisted" on Page 6, Paragraph 0028, third sentence, should be amended because the examiner is unsure what this term is signifying. While the term "hoisted" is often used in the field of loading cargo ships, it is not normally used in the art of computer programming. In the response to this Office Action, Applicant should either amend the term "hoisted" (every instance of its use) or explain how this term characterizes the "type, assembly and attribute information" that it modifies.
- The term "XML" (in Step 706) on Page 10, Paragraph 0035, fourth sentence, should be amended because it does not correspond with previous steps. Step 704 states that "source XAML" is loaded into the mapping engine. This indicates that an XAML file is transmitted to and received by the mapping machine. Step 706 then states that the "next XML token" is converted to a **XAML** token. Why would an **XAML** file include an **XML** token? Would not the token instead be an

**XAML** token, since it is located in an **XAML** file? In the response to this Office Action, Applicant should respond to this issue.

- The phrase “associated may records” on Page 9, Paragraph 0033, fifth sentence, should be amended to — associated records — because it appears to be a typographic error.

Appropriate correction is required.

### ***Claim Objections***

Claims 11, 14, 20 and 26 are objected to because of the following informalities:

- In Claim 11, the phrase “*in the binary representation*” in Line 2 should be relocated between the terms “*identifier*” and “*to*” in Line 2 so that the phrase reads more clearly. Claims 14, 20 and 26 have the same problem.

Claims 14, 20 and 26 are objected to because of the following informalities:

- In Claim 14, the limitation “*wherein the optimization comprises **at least one of** optimizing the binary representation **at least by** encoding . . . , indexing . . . , and embedding . . .*” in Lines 1-5 should be amended to — wherein the optimization comprises ~~at least one of~~ optimizing the binary representation by at least ~~[[by]]~~ one of encoding . . . , indexing . . . , and embedding . . . — so that the limitation reads more clearly. Claims 20 and 26 include the same problem.

Claim 14 is objected to because of the following informalities:

- The term “*system*” in Line 1 should be amended to — method — because the claim is dependent upon Claim 11, which recites a “*method*.”

Claim 15 is objected to because of the following informalities:

- The phrase “*via a comprises a serial interface*” in Line 2 should be amended to — via a ~~comprises~~ a serial interface — so that the phrase reads more clearly.

Appropriate correction is required.

Applicant is advised that should Claims 11-16 be found allowable, Claims 17-22 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-31 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

*Claims 1-10 and 23-28:*

The language of the claims raise a question as to whether the claims are directed merely to an abstract idea that would not result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

In summary, Claims 1 and 23 recite a “*system*” comprising an “*input interface*,” a “*mapping engine*” and an “*output interface*” that perform various functions on electronic data. The “*input interface*,” “*mapping engine*” and “*output interface*” comprise instructions for performing the various functions on the electronic data.

The recited invention is computer software *per se*. A computer program is merely a set of instructions capable of being executed by a computer. The computer program itself is not a statutory process in that it does not include the computer-readable medium needed to realize the functionality of the computer program. Moreover, the software merely manipulates electronic data. That is, as currently recited, no function is performed **using** the electronic data so that such use produces a tangible, “real world” result. Thus, as currently recited, Claims 1 and 23 are directed to an abstract idea that does not produce a concrete, useful and tangible result.

Claims 2-10 and 24-28 merely recite further definitions of the types of electronic data that are manipulated by the software or further instructions for manipulating the

electronic data. Thus, none of Claims 2-10 and 24-28 produce a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

*Claims 11-22:*

The language of the claims raise a question as to whether the claims are directed merely to an abstract idea that would not result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

In summary, Claims 11 and 17 recite a method for receiving electronic data, organizing the electronic data into a different format and exposing the electronic data to “*external resources*.” The recited invention merely manipulates electronic data. Thus, as currently recited, no function is performed **using** the electronic data so that such use produces a tangible, “real world” result.

Claims 12-16 and 18-22 merely recite further definitions of the types of electronic data that are manipulated or further instructions for manipulating the electronic data.. Thus, none of Claims 12-16 produce a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

*Claims 29-31:*

The language of the claims raise a question as to whether the claims are directed merely to an abstract idea that would not result in a practical application producing a



concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

In summary, Claim 29 recites a "*computer readable medium*" comprising software that performs various functions on electronic data. As currently recited, the software merely manipulates electronic data. That is, the software performs no function that **uses** the electronic data in a way that produces a tangible, "real world" result. Thus, as currently recited, Claim 29 is directed to an abstract idea that does not produce a concrete, useful and tangible result.

Claims 30 and 31 merely recite further definitions of the types of electronic data that are manipulated.. Thus, Claims 30 and 31 do not produce a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 6, 7, 11, 15, 17, 21, 23, 27 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Sullivan et al., U.S. Patent No. 7,007,105.

*Claim 1:*

Sullivan discloses *a system for generating an optimized binary representation of an object tree* (see Figures 1, 2 and 4; see Column 1, Line 27 through Column 2, Line 39; see Column 2, Lines 43-67; see Column 3, Line 21 through Column 6, Line 17 – Sullivan discloses this limitation in that the system includes a distributed computer network in which XML data is compressed in order to optimize the storage and transmission of XML documents), *comprising:*

- *an input interface to receive markup language information corresponding to an object tree* (see Figures 1, 2 and 4; see Column 1, Line 27 through Column 2, Line 39; see Column 2, Lines 43-67; see Column 3, Line 21 through Column 6, Line 17 – Sullivan discloses this limitation in that the system includes a distributed computer network in which XML data is “received” in order to compress the XML data for the purpose of optimizing the storage and transmission of XML documents);
- *a mapping engine, the mapping engine communicating with the input interface to receive the markup language information and generate an optimized binary representation of the markup language information* (see Figures 1, 2 and 4; see Column 1, Line 27 through Column 2, Line 39; see Column 2, Lines 43-67; see Column 3, Line 21 through Column 6, Line 17 – Sullivan discloses this limitation in that the system tokenizes XML tags using lookup tables and creates data streams using the tokenized tags and corresponding content information. The

data streams are then compressed and therefore optimized for storage and transmission.); *and*

- *an output interface, communicating with the mapping engine, the output interface exposing the optimized binary representation to external resources (see Figures 1, 2 and 4; see Column 1, Line 27 through Column 2, Line 39; see Column 2, Lines 43-67; see Column 3, Line 21 through Column 6, Line 17 – Sullivan discloses this limitation in that the system includes a distributed computer network in which the optimized data streams are transmitted to external devices of the distributed computer network.).*

*Claim 6:*

Sullivan discloses *a system according to Claim 1, wherein the output interface comprises a serial interface (see Figures 1, 2 and 4; see Column 1, Line 27 through Column 2, Line 39; see Column 2, Lines 43-67; see Column 3, Line 21 through Column 6, Line 17 – Sullivan discloses this limitation in that the system creates an optimized data stream comprising sequences of binary bits that are transmitted to external devices of the distributed computer network.).*

*Claim 7:*

Sullivan discloses *a system according to Claim 6, wherein the serial interface communicates a serialized binary representation to a client machine (see Figures 1, 2 and 4; see Column 1, Line 27 through Column 2, Line 39; see Column 2, Lines 43-67;*

see Column 3, Line 21 through Column 6, Line 17 – Sullivan discloses this limitation in that the system transmits optimized data streams to clients in the distributed computer network.).

*Claims 11 and 15:*

Claims 11 and 15 merely recite a method of using the system recited in Claims 1 and 6, respectively. Thus, Claims 11 and 15 are rejected as indicated in the above rejections for Claims 1 and 6.

*Claims 17 and 21:*

Claims 17 and 21 merely recite a method of using the system recited in Claims 1 and 6, respectively. Thus, Claims 17 and 21 are rejected as indicated in the above rejections for Claims 1 and 6.

*Claims 23 and 27:*

The subject matter recited in Claims 23 and 27 closely corresponds to the subject matter recited in Claims 1 and 6, respectively. Thus, Claims 23 and 27 are rejected as indicated in the above rejections for Claims 1 and 6.

*Claim 29:*

Claim 29 merely recites software that corresponds to the system recited in Claim 1. Thus, Claim 29 is rejected as indicated in the above rejection for Claim 1.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-5, 8, 12-14, 16, 18-20, 22, 24-26, 28, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan, in view of Wei, U.S. Patent Application Publication No. US 2004/0143823.

***Claim 2:***

As indicated in the above rejection, Sullivan discloses every limitation of Claim 1.

Sullivan fails to expressly disclose *markup language information [that] comprises extensible application markup language information*.

Wei teaches a system for network-based computing comprising XML compilers receiving many different types of XML input, including XAML files, and converting the input to output, for the purposes of deploying applications to any type of client machine via computer networks and providing a universal compiler that handles many different types of XML (see Figure 4B; see Page 1, Paragraph 0004 through Page 2, Paragraph 0014; see Page 3, Paragraphs 0021-0022; see Pages 3-4, Paragraph 0026; see Page 7, Lines 60-62 – Wei teaches this, as clearly indicated in the cited figure and text).

This teaching of Wei is the equivalent of a system that optimizes input *markup language information, wherein the markup language information comprises extensible application markup language information.*

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system, disclosed in Sullivan, to include:

- *markup language information [that] comprises extensible application markup language information,*

for the purposes of deploying applications to any type of client machine via computer networks and providing a universal compiler that handles many different types of XML, as taught by Wei.

*Claim 3:*

Sullivan fails to expressly disclose an *object tree [that] corresponds to user interface elements.*

Wei teaches a system for network-based computing comprising XML compilers receiving many different types of XML input, including XML that defines user interfaces, and converting the input to output, for the purposes of deploying applications to any type of client machine via computer networks and providing a universal compiler that handles many different types of XML (see Figure 4B; see Page 1, Paragraph 0004

through Page 2, Paragraph 0014; see Page 3, Paragraphs 0021-0022; see Pages 3-4, Paragraph 0026; see Page 6, Paragraph 0054; see Page 7, Lines 60-63 – Wei teaches this, as clearly indicated in the cited figure and text).

This teaching of Wei is the equivalent of a system that optimizes input *markup language information corresponding to an object tree, wherein the object tree corresponds to user interface elements.*

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system, disclosed in Sullivan, to include:

- *an object tree [that] corresponds to user interface elements,*

for the purposes of deploying applications to any type of client machine via computer networks and providing a universal compiler that handles many different types of XML, as taught by Wei.

*Claim 4:*

Sullivan discloses *optimizing the binary representation at least by encoding information in the binary representation* (see Figures 1, 2 and 4; see Column 1, Line 27 through Column 2, Line 39; see Column 2, Lines 43-67; see Column 3, Line 21 through Column 6, Line 17 – Sullivan discloses this limitation in that the system compresses XML data by encoding it into data streams. The data streams are then compressed and therefore optimized for storage and transmission.).

Sullivan fails to expressly disclose *optimizing the binary representation at least by encoding **dimension** information in the binary representation.*

Wei teaches a system for network-based computing comprising XML compilers receiving many different types of XML input, including XML that defines user interfaces, and converting the input to output, for the purpose of efficiently transmitting and storing XML data that defines user interfaces (see Figure 4B; see Page 1, Paragraph 0004 through Page 2, Paragraph 0014; see Page 3, Paragraphs 0021-0022; see Pages 3-4, Paragraph 0026; see Page 6, Paragraph 0054; see Page 7, Lines 60-63 – Wei teaches this, as clearly indicated in the cited figure and text).

At a minimum, this teaching of Wei implies encoding dimension information of the user interfaces. Thus, this teaching of Wei is the equivalent of a system that optimizes input *by encoding dimension information.*

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system, disclosed in Sullivan, to include:

- *optimizing the binary representation at least by encoding **dimension** information in the binary representation,*

for the purpose of efficiently transmitting and storing XML data that defines user interfaces, as taught by Wei.



*Claim 5:*

Sullivan fails to expressly disclose *dimension information [that] comprises at least one of a length field and a width field.*

Wei teaches a system for network-based computing comprising XML compilers receiving many different types of XML input, including XML that defines user interfaces, and converting the input to output, for the purpose of efficiently transmitting and storing XML data that defines user interfaces (see Figure 4B; see Page 1, Paragraph 0004 through Page 2, Paragraph 0014; see Page 3, Paragraphs 0021-0022; see Pages 3-4, Paragraph 0026; see Page 6, Paragraph 0054; see Page 7, Lines 60-63 – Wei teaches this, as clearly indicated in the cited figure and text).

At a minimum, this teaching of Wei implies encoding dimension information of the user interfaces that comprises at least one of a length field and a width field. Thus, this teaching of Wei is the equivalent of a system that optimizes input *by encoding dimension information.*

Moreover, the examiner takes **Official Notice** that it was well-known in the art (i.e., the field of computer programming) at the time the invention was made to define “dimension information” for a GUI that includes a “length field” and a “width field” for the purpose of setting sizes for elements comprising the GUI.

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system, disclosed in Sullivan, to include:

- *dimension information [that] comprises at least one of a length field and a width field,*

for the purpose of efficiently transmitting and storing XML data that defines user interfaces, as taught by Wei.

*Claim 8:*

Sullivan fails to expressly disclose *external resources [that] comprises application programming interfaces.*

Wei teaches a system for network-based computing comprising XML compilers that convert XML input to output, wherein the output is transmitted to client APIs, for the purposes of executing client API calls and displaying results at clients (see Figure 10; see Page 1, Paragraph 0004 through Page 2, Paragraph 0014; see Page 3, Paragraphs 0021-0022; see Pages 3-4, Paragraph 0026; see Pages 4-5, Paragraphs 0032-0033; see Page 7, Lines 60-63; see Pages 9-10, Paragraphs 0071-0073 – Wei teaches this, as clearly indicated in the cited figure and text).

This teaching of Wei is the equivalent of a system that exposes optimized markup language information to *external resources, wherein the external resources comprise application programming interfaces.*

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system, disclosed in Sullivan, to include:

- *external resources [that] comprises application programming interfaces,*

for the purposes of executing client API calls and displaying results at clients, as taught by Wei.

*Claims 12-14 and 16:*

Claims 12-14 and 16 merely recite a method of using the system recited in Claims 2-4 and 8, respectively. Thus, Claims 12-14 and 16 are rejected as indicated in the above rejections for Claims 2-4 and 8.

*Claims 18-20 and 22:*

Claims 18-20 and 22 merely recite a method of using the system recited in Claims 2-4 and 8, respectively. Thus, Claims 18-20 and 22 are rejected as indicated in the above rejections for Claims 2-4 and 8.

*Claims 24-26 and 28:*

The subject matter recited in Claims 24-26 and 28 closely corresponds to the subject matter recited in Claims 2-4 and 8, respectively. Thus, Claims 24-26 and 28 are rejected as indicated in the above rejections for Claims 2-4 and 8.

*Claims 30 and 31:*

Claims 30 and 31 merely recite software that corresponds to the system recited in Claims 2 and 3, respectively. Thus, Claims 30 and 31 is rejected as indicated in the above rejection for Claims 2 and 3.

Claims 9, 10, 14, 20 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan, in view of Lewallen, U.S. Patent No. 6,801,224.

*Claim 9:*

As indicated in the above rejection, Sullivan discloses every limitation of Claim 1.

Sullivan fails to expressly disclose *optimization [that] comprises indexing the first instance of a novel object type in the binary representation.*

Lewallen teaches a system for generating an application GUI within and as part of a browser window. The system comprises a bridge that converts input data to output data. The bridge maintains an object table that includes pointers for native operating system objects linked to corresponding Java objects. The object table is used to avoid creating multiple instances of the same Java object by having APIs that call the objects use existing instances of objects, if they have been already created, rather than instantiating additional instances of the same object (see Figure 1; see Column 3, Line 5 through Column 4, Line 40 – Lewallen teaches this, as clearly indicated in the cited

figure and text). Such action reduces data transmission times and storage requirements.

This teaching of Lewallen is the equivalent of a system that optimizes input data and sends the data to *external resources, wherein the optimization comprises indexing the first instance of a novel object type in the binary representation.*

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system, disclosed in Sullivan, to include:

- *optimization [that] comprises indexing the first instance of a novel object type in the binary representation,*

in order to avoid creating multiple instances of the same object and reduce transmission times and storage requirements, as taught by Lewallen.

*Claim 10:*

Sullivan fails to expressly disclose *optimization [that] comprises embedding an identifier to invoke an associated loader in the binary representation.*

Lewallen teaches a system for generating an application GUI within and as part of a browser window at a client. The system comprises a bridge that converts input data to output data. The bridge maintains an object table that includes pointers for native operating system objects linked to corresponding Java objects. The object table

is used to avoid creating multiple instances of the same Java object by having APIs that call the objects use existing instances of objects, if they have been already created and transmitted to the client, rather than instantiating additional instances of the same object (see Figure 1; see Column 3, Line 5 through Column 4, Line 40 – Lewallen teaches this, as clearly indicated in the cited figure and text). Stated differently, when a client API calls an object that was previously sent to the client, the bridge will send the pointer to the client rather than sending the object to the client. The pointer identifies the object that was previously transmitted to the client and subsequently called by the client API. Such action reduces data transmission times and storage requirements.

This teaching of Lewallen is the equivalent of a system that optimizes input data and sends the data to *external resources, wherein the optimization comprises embedding an identifier to invoke an associated loader in the binary representation.*

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system, disclosed in Sullivan, to include:

- *optimization [that] comprises embedding an identifier to invoke an associated loader in the binary representation,*

in order to avoid creating multiple instances of the same object and reduce transmission times and storage requirements, as taught by Lewallen.

*Claim 14:*

Claim 14 merely recites a method of using the system recited in Claims 9 and 10. Thus, Claim 14 is rejected as indicated in the above rejections for Claims 9 and 10.

*Claim 20:*

Claim 20 merely recites a method of using the system recited in 9 and 10. Thus, Claim 20 is rejected as indicated in the above rejections for 9 and 10.

*Claim 26:*

The subject matter recited in Claim 26 closely corresponds to the subject matter recited in 9 and 10. Thus, Claim 26 is rejected as indicated in the above rejections for 9 and 10.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Lewallen, U.S. Patent No. 6,941,520; Relyea et al., U.S. Patent Application Publication No. US 2004/0230900; Bent et al., U.S. Patent Application Publication No. US 2004/0230911; Bowman et al., U.S. Patent Application Publication No. US 2004/0111673; Zimmermann et al., U.S. Patent Application Publication No. US 2002/0107999; Dees, U.S. Patent Application Publication No. US 2003/0137539; Boswell, David, et al., **Creating Applications with Mozilla** (O'Reilly Publishing –

Art Unit: 2176

September, 2002); Powers, Shelley, **Practical RDF**, Chapter 14, Section 1 – “Mozilla” (O'Reilly Publishing – July, 2003); Sauer, Frank, “XML Talk: A framework for automatic GUI rendering from XML specs,” in Java Report (October, 2001); and Trewin, Shari, et al., “Abstract User Interface Representations: How Well do they Support Universal Access?,” at CUU '03 in Vancouver, Canada (November 10-11, 2003).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Doug Hutton whose telephone number is 571-272-4137. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon, can be reached at (571) 272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

WDH  
March 19, 2006



**DOUG HUTTON  
PRIMARY EXAMINER  
TECH CENTER 2100**